

PRELIMINARY DRAFT SUBJECT TO REVISION

[FISH AND WILDLIFE COORDINATION
for Hydroelectric Projects Licensed by
the Federal Energy Regulatory
Commission (FERC)

Intermountain Region
Forest Service
U.S. Department of Agriculture

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* This report is based upon similar coordination requirements in a report by the California Region issued in August 1981 but updated and revised to meet conditions that exist in the Intermountain Region and the recently issued FSM 2770, 11/81, Amendment 75.

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I. Hydroelectric Projects: An Overview

The Federal Power Act, administered by the Federal Energy Regulatory Commission (FERC), requires that a license be issued for any non-federal hydroelectric works: (1) on federal lands; (2) on navigable streams; (3) engaged in interstate or international commerce; or (4) using surplus water or water power from a federal dam.

As a part of the licensing process, the official position of the Department of Agriculture regarding licensing of projects affecting National Forest System lands is stated in a report (or 4(e) letter) submitted to FERC under the provisions of Section 4(e) of the Federal Power Act. When it is determined that a project will cause loss of present or future natural resources from National Forest System land, appropriate resource mitigation measures which would have bearing on power production facilities or on its operation, should be included in the 4(e) letter.

In conjunction with the FERC licensing process, the Secretary of Agriculture is authorized to grant rights-of-way (through special use authorizations) for approved hydroelectric projects occupying National Forest System land.

Appropriate resource mitigation measures applicable to rights-of-way which would not affect power-production facilities or operation of the facilities should be included in the special use authorization. FSM 2770, 11/81, Amendment 75, should be reviewed for Forest Service policy and procedures for the FERC licensing process.

Since the Forest Service is involved in preparing at the same time both the 4(e) letter for FERC and the special use authorization, care should be taken

to ensure that conditions and requirements included in each are not in conflict. Construction and operation of the project should also be performed in such a manner that National Forest System lands and resources are protected or effectively utilized.

The issuance of a license by FERC and of a special use authorization by the Forest Service must also be consistent with the purposes of other controlling legislation. A partial list of legislation which is pertinent to fisheries and wildlife includes the Organic Administrative Act of 1897, the Multiple Use-Sustained Yield Act of 1960, National Environmental Policy Act of 1969, Wild and Scenic Rivers Act of 1968, Endangered Species Act of 1973, Fish and Wildlife Coordination Act of 1958, Federal Power Act of 1955, Clean Water Act of 1972, Executive Orders #11988 for Floodplain Management, and #11990 for Protection of Wetlands.

In addition to existing legislation, Forest Service Policy, Standards, Guidelines, and Handbooks should be considered during the licensing process. Some suggested additional fisheries and wildlife considerations include the Riparian Area Policy (FSM 2526); Hydroelectric Project Licenses and Special Use Authorization (FSM 2770), Aquatic Habitat Surveys (FSM 2621 11/79, R-4 Supplement 31); R-4 GAWS Aquatic Habitat Surveys Handbook (FSH 2609.33), Draft 1981; R-4 Guidelines for Water Resource Inventories, S&WM, 1979; R-4 Technical Guide on Recommended Methods for Peak Flow Determination, S&WM, 1979; R-4 Technical Guide for Preparing Water Quality Monitoring Plans, S&WM, 1980; R-4/R-1 Guide for Predicting Sediment Yields from Forested Watersheds, S&WM, 1981.

II. Licensing/Special Use Authorization Processes and Fishery/Wildlife Biologist Involvement

Procedural strategy for approaching the FERC licensing/special use authorization process on forests is dependent on the type of license application. The various types of applications include:

- a. Major (>1500 KW) unconstructed projects
- b. Minor (<1500 KW) unconstructed projects
- c. Amendment of an existing license
- d. New license for an existing project or termination

An outline of the basic procedures involved in the FERC licensing/special use authorization for a major unconstructed project is shown in Exhibit 1 and is presented to provide an overview of the steps involved and their interrelationships. Further explanation of these steps are contained in FSM 2770.

The outline presented in Exhibit 2 highlights the activities a fishery/wildlife biologist will be involved in and the time sequence of events. More specific procedural guidelines should be developed at the Forest level as the need arises.

As indicated in Exhibit 2, extensive and early coordination (both internal and external) is required in the licensing/special use authorization process to ensure the project proposal includes fully acceptable resource maintenance elements and adequate resource mitigation measures.

External coordination during the period of review for project proposals involving preliminary permits, study stages, or EA/EIS's will normally be required with the State wildlife agency and U.S. Fish and Wildlife Service. Coordination or cooperative action with the USDC-National Marine Fisheries Service, Corps of Engineers, USDI-Bureau of Reclamation, USDI-Bureau of Land Management, USDI-National Park Service, State natural resource agencies, and pertinent local interest groups may also be required. It is important that active liaison with the above agencies and groups, as appropriate, be established as soon as it is known that a project is being planned. This active liaison should be continued throughout the project planning and evaluation stages. Preferred active liaison should include interagency meetings (especially during the project review stage), frequent informational exchange (including draft mitigation proposals), and interagency coordination at the data gathering and/or field study stages.

Measures, requirements, or stipulations which would affect power production facilities or operation of the facilities of a project should be included in the 4(e) letter, whereas other mitigative measures which are applicable to rights-of-way (i.e., activities associated with land clearing and construction) should be included in the special use authorization. Mitigation measures developed by specialists should not be duplicated in the 4(e) letter and the special use authorization nor should these mitigation measures conflict in these documents.

Many of the same procedures and processes as outlined for a license/special use authorization application on a major unconstructed project will also pertain to a minor unconstructed project application, an amended license application, and, in some cases, an application for a new license for a constructed project. However, the steps involved may not be as extensive and timeconsuming as those for a major unconstructed project. The extent of the effort needed will depend on site specifics concerning the project proposal, the value of the resources, the extent of existing energy development, anticipated impacts, and other aspects of the existing situation in the project area.

Early and extensive internal coordination between the forest FERC license coordinator, resource staff specialist, line managers and Regional Office counterparts is also necessary throughout the licensing/special use authorization process. Coordination with the Regional Office should involve, as appropriate, the Regional Energy Development Specialist (S&PF), the Regional Special Uses Officer (L), the Regional Water Rights Specialist (S&WM), and the Regional Aquatic Ecologist (WL). These four specialists will also be involved in processing the Regional response to FERC on any project proposal.

Does Region always prepare a response?

These coordination measures will best facilitate the timely resolution of resource conflicts while ensuring that agreements with the applicant concerning project mitigation for fisheries/wildlife reflect multi-agency concerns.

III. Water Rights Appropriation and Processing Procedures

Frequently, the first notice the Forest has of a pending hydroproject is found in the local newspaper in the public notice section. Western States require that water right applications be advertised in the local newspaper. These legal notices contain the applicant's name, purpose of use, location, etc. The proposal may not interfere with National Forest Management and in this case, no action is necessary. If it is determined the proposed use would interfere with a water right held by the Forest Service, a protest will be made of the application. It is important to note the deadline for the protest because it cannot be extended (see Exhibit VI).

If a protest is in order, the first step for the Forest is to collect and assemble the necessary information. The types of information necessary are: (1) name of applicant, (2) purpose of use, (3) amount of water applied for, (4) when the water is needed, (5) what type of Forest Service water right is being interfered with, i.e., a state water right, federal reserved right based on the Organic Act, federal reserved right based on the M.U. Act, or in which combination, (6) land status, (7) impacts to water related values, (8) quantification of reserved right, if possible, and (9) other.

The Forest then prepares a draft protest letter and transmits it to the Regional Forester under the Forest Supervisor's signature or his acting. The Regional Forester then prepares the formal protest letter and mails it to the appropriate state official (see Exhibit V).

Following the formal protest letter, the Forest Supervisor normally tries to make direct contact with the applicant and resolve the protest. It is

important to remember that once a federal reserved water right has been quantified, the Forest Service has no authority to negotiate or compromise the amount of water or the duration of use associated with the water right.

If the protest cannot be resolved by a direct meeting with the applicant, the state will normally call for a hearing. At the hearing, the hearing officer will call for sworn testimony from both parties. The hearing officer will then prepare a written finding of facts and conclusion of law. If either party is dissatisfied with the state's decisions, the matter may be appealed in a state district court, or in some cases, to a federal court.

IV. Fisheries/Wildlife Impact Considerations

The assessment of streamflow releases needed for maintenance of aquatic habitat and fisheries will usually involve the coordinated efforts of the aquatic habitat/wildlife biologist and hydrologist during project proposal review. Studies and field measurements for the determination of streamflows should be coordinated with the state wildlife agency. The aquatic resources and values associated with the water in question will usually determine the method and type of streamflow to be claimed. The United States may have non-consumptive federal reserved water rights on its streams within National Forest boundaries. These rights are for the purpose of securing favorable conditions of waterflow as identified in the Organic Administrative Act of 1897 (i.e., for watershed protection and timber production. These rights can also be applied if applicable for the purposes of protecting and maintaining the fishery, wildlife, and recreational resources as required by the Multiple Use-Sustained Yield Act of 1960.

The R-4 General Aquatic Wildlife System Instream Flow program should be used in all streamflow determinations. This method will predict suitability of aquatic habitat for fish based on the relationships of discharge to the physical parameters of depth, velocity, and cover over a range of low flows. This method can be supplemented with methodologies adopted by state wildlife agencies to provide for a more unified agreement on a recommended streamflow. ??

Other similar methodologies available for assessing the fisheries instream flow needs include the U.S. Fish and Wildlife Service (FWS) Instream Flow Group's (IFG) Incremental Flow Method (Bovee, 1978). The methodology predicts the suitability of stream habitat for fish of a given species or life stage

based on the relationships of discharge to the physical parameters of depth, velocity, temperature, and substrate/cover over a range of high and low flows. The Idaho Fish and Game Department has modified this incremental method for use in Idaho waters. It uses the water surface profile computer program interfaced with the wetted perimeter computer program and biological criteria for rearing, spawning, and passage of fish species. Although developed for large unwadable rivers, it is easily adapted to small streams. It does not relate flow to aquatic habitat directly. The Utah Division of Wildlife Resources uses several methods either separately or in concert with each other to arrive at a preferred flow. These methods are the FWS incremental method, the Montana Method, or the Wyoming Method (refer to Appendix I). These methods can be used on major FERC projects where significant fishery resources occur in order to supplement or enhance the R-4 GAWS data, if time, budget, and manpower is available.

For a minor project, the use of the IFG methodology may be too involved and costly to be used as a supplemental method with R-4 GAWS. Other methodologies may best suit the specific objectives set for the instream flow determination. A summary review of these methodologies and literature references available for aiding in the assessment of instream flow needs of the fishery resource are contained in Appendixes I and II.

Some of the following considerations should be included in the choice of the appropriate methodology and appropriate supplemental methodology for determining fisheries instream flow needs associated with a minor project:

(1) the appropriateness of the methodology for meeting specific objectives set for instream flow determination; (2) the significance of the aquatic riparian habitat and fishery resource; (3) project operation specifics; (4) other agency and interest group input; (5) the time and cost involved in implementing the study and methodology; (6) limitations of the methodology and applicability to the site specifics involved; (7) the extent of impacts anticipated; and (8) the amount of controversy anticipated in relation to the project and the legal and other agency use or acceptance of the methodology.

Should issues relating to streamflows and water rights not be resolved satisfactorily for all parties involved, it should be assumed that court action can be expected. In preparing for these possibilities in the future, the planning process should include documentation and use of Forest Service approved methodologies, supplemented if appropriate, with other accepted procedures in order to arrive at a best management decision based on the resource present.

In addition to streamflow release concerns for fisheries/wildlife, other potential impacts associated with project design, construction, and operation should be considered when evaluating projects.

Some of the potential impacts to fisheries/wildlife associated with hydroelectric projects and mitigative options for each impact concern are presented below:

Potential Impacts

Mitigative Options

1. Loss of fishery/wildlife habitat or habitat structural changes via water flow regime changes

- 1(a) Provision for adequate flow releases and consideration of the needs of fish/wildlife at certain times of the year to develop an adequate instream flow schedule
- (b) Adequate fish and wildlife compensation for loss of habitat inundated as a result of the project

2. Changes in daily water level fluctuations and effects on fish/wildlife (both in reservoir (if developed recreationally) and area below reservoir)

- 2(a) Provision for appropriate flow release schedules
- (b) Provision for conservation pool level in reservoirs

3. Siltation problems

- 3(a) Provision for instream flushing flows at normal high flow periods
- (b) Prevention of siltation and streambank vegetation loss through mitigation during project design and construction

(c) Mitigation of project
construction activities

(d) Location of project

4. Stream channel changes

4(a) Adequate flow releases

(b) Mitigation during project
construction and project design
development

5. Water temperature changes

5(a) Appropriate types of water flow
release through appropriate
dam design (multi-level outlets
cooler water releases when
flow released from bottom of
reservoir)

(b) Adequate flow releases to cool
downstream area below reservoir

Potential Impacts cont.

Mitigative Options cont.

- | | |
|------------------------------------|--|
| | (c) Mitigation of silt problems to
reduce suspended sediments |
| 6. Loss of riparian cover | 6(a) Adequate flow and appropriate
schedules for flow releases |
| | (b) Rehabilitation of area through
replanting streambank and
channel stabilization
structures |
| | (c) Mitigation during project
construction and design |
| 7. Fish passage problems | 7(a) Adequate project design for to
structures to allow for
fish passage |
| | (b) Adequate flow to meet depth and
velocity needs for fish passage |
| 8. Impingement/entrainment of fish | 8(a) Screening of diversion
structures and provision for |

appropriate flows in front of
structures

9. Depletion of dissolved oxygen
supplies for fish

9(a) Appropriate flow release and
flow schedule

(b) Mitigation of project design
and construction

10. Changes in food supply and
energy dynamics in the aquatic
system

10(a) Same as #9 and #6

11. Loss of wildlife habitat (or
critical habitat factors) or
adverse change in habitat
structure via land disturbance

11(a) Mitigation of project location,
construction activities, and
project design

*What about acquisition of land -
purchase or land exchange - to
secure habitat -- plus money to
manage the land -- to implement it*

Additional Impact Considerations

Besides the impact considerations listed, mitigation measures for development of the project reservoir as a recreational fishery may be required. Also, synergistic impacts resulting from more than one project on an aquatic system should be considered when assessing impacts. Review of FSM 2770.3 will provide the reader with additional information for mitigation measures and special conditions and requirements which should be considered in review of project proposals.

Appendix I

Instream Flow Methodologies for Fisheries

1. USDA-Forest Service, R-4 Method

This method was developed primarily for streams from 4 to 150 feet wide. The method is based on a habitat survey sampling procedure using cross-channel transects to quantify flow associated variables and habitat rating values at an index flow such as low summer flow. Estimates of the habitat rating values at the computed water stages are then made and are expressed as a percentage of the index flow value. The percent of index flow versus percent of index flow habitat value is graphed, and minimum flows are selected which will allow retention of at least 80% of the index flow habitat value.

2. Idaho Methodology (White and Cochnauer, 1975)

This method was developed specifically for use with large rivers and has been used in conjunction with warmwater indicator species. The usable width methodology is applied and the WSP computer program has been used to reduce field measurement time.

3. USDI-Fish and Wildlife Service, IFG Incremental Methodology (Bovee, 1977)

This methodology has been one of the most widely used and accepted methodologies for determining instream flows for fisheries. The method examines variables of depth, velocity, temperature and substrate under differing flow conditions. Like some of the other methodologies, this method considers flow needs for particular fish species by life stage habitat needs. Probability-of-use curves and weighted usable area values as determined by the variables above in relation to discharge is drawn up for each life stage of a species. Flow recommendations are derived from the calculated weighted usable area-discharge relationship for each life stage.

4. The Cross Method (Silvey, 1976)

Critical areas on a stream which are most useful for studying parameters important to a fishery are the transects chosen for study. Often, the critical areas chosen are the shallowest areas in the stream reach. Depth from a reference line is measured with regard to discharge. The Cross computer program is then used to synthesize channel cross-sections at different discharges. From the synthesized flows, the absolute minimum flow at each critical area needed to meet minimum criteria for the parameters represented is identified. Flows for critical areas are then related to a stage at a master reference point so that an adequate streamflow can be chosen in reference to all critical area needs.

Although this method is practical, adaptable and legally defensible it is not very sensitive to velocity dependent habitat parameters such as spawning and food producing areas. The only velocity output of the Cross program is a mean value for the entire synthesized cross-section.

5. Water Surface Profile (WSP) Computer Program (U.S. Bureau of Reclamation)

This computer program has been used frequently in conjunction with other instream flow methodologies to model habitat-discharge relationships. The WSP program allows the investigator to examine specific portions of a cross-section for suitability in meeting the needs of a species for a particular biological activity.

6. Oregon Method or Usable Width Method (Thompson, 1972)

The Usable Width Method is based on criteria that reflect flow, depth and velocity requirements of salmonids for particular biological activities. Transects most critical to the biological activities of concern are chosen for study. The total width and longest usable portion of the transect meeting criteria for an activity are measured at each of several flows ranging from high to low flows. After usable habitat for a particular activity is graphed against discharge, a flow is selected for each transect which meets the criteria at a certain percent of the total transect width and on a continuing portion. The overall flow recommended for a period of time from a mix of biological activity flow needs is the highest flow required to accommodate any biological activity during that period.

7. Single Transect Method (Montana Department of Fish, Wildlife and Parks, 1975, 1980)

The single transect method involves the use of the wetted perimeter-discharge relationship for a single riffle cross-section to derive flow recommendations. The WETP computer program is used to model discharge-wetted perimeter relationships in the stream. The flow recommendation is selected at the inflection point on the graph of wetted perimeter versus discharge. Wetted perimeter is considered the primary flow recommendation determinant in this method on the premise that it is the parameter most likely related to adult trout in boulder and cobble strewn rivers for which this methodology was developed. This method also assumes that in examining riffle habitats, more than adequate habitat would be provided in pools and runs, since riffles are most affected by flow reductions. By examining adult trout habitat only, flow recommendations using this methodology may be inadequate where recruitment is a problem and the adult population is far below the stream carrying capacity.

8. California Method (Waters, 1976)

This methodology arrives at an optimum flow for specific biological activities of various species below impounded areas. Recommended flows are based upon field measurement of habitat variables at different daily release flows. A relative value for each sampling point for each study flow and habitat parameter associated with a particular activity of a species is calculated by a computer program. A plot of the relationship between the magnitude of the habitat parameter of interest and release flows can then be drawn up. These are then used to determine the effects of different release flows on a species and to recommend the optimum flow for that species.

9. Multiple Transect Method (Montana Department of Fish, Wildlife and Parks, 1975, 1979)

This method applies the single transect methodology, but a composite of 4-7 cross-sections are used to derive flow recommendations.

10. Weighted Usable Width Method (Sams and Pearson, 1963)

This method is similar to the Oregon method, but weighting factors for spawning habitat are applied to the method. Thus, a transect area in which only 2% of the redds occurs is not considered equally with transects where 98% of the redds occur in the analysis of transect information.

11. Indicator Species - Overriding Consideration Method (Bovee, 1975)

The basis of this methodology is the premise that if environmental conditions are not unfavorable for the species with the narrowest range of discharge requirements, they will likely be suitable for all others. The usable width methodology is applied in reference to particular biological activity flow needs of a species. The Washington Method is also used in this method in reference to spawning habitat flow assessment.

12. Washington Method (Collings, 1974)

A preferred discharge for spawning is the output of this method. This is determined by overlaying map isohyets of depth and velocity to determine the area of the study reach preferred for spawning. The minimum flow is then defined as not less than 75% of the preferred spawning discharge.

13. One Flow Method (Sams and Pearson, 1963)

This method gives optimum flow for salmonids using the usable width analyses while also focusing in on the spawning habitat used. Optimum spawning flow is defined as average pool width multiplied by mean velocity and depth of water over redds. Since the method is primarily developed for habitat parameter measurement through use of aerial photos, the method is only applicable to larger streams on which average stream width is near average pool width.

14. R-6 Method (Swank, 1975)

This method derives the optimum streamflow for fisheries by considering not only the greatest amount of usable habitat but spawning, rearing and food-producing criteria. Use of this methodology requires historic records of a stream-gaged site in the stream being considered.

15. WRI Cover Method (Wesche, 1973)

This method emphasizes the importance of bankside cover and instream rating microhabitat in developing flow recommendations for smaller streams (≤ 100 cfs) with highly cover-oriented species such as brown trout.

16. Wyoming Methodology (Binns and Eiserman, 1979)

This method was developed to predict trout standing crop in Wyoming streams. A Habitat Quality Index (HQI) was developed to model habitat relationships with fish stocks using the parameters of late summer flow, annual flow variation, width, velocity, cover, eroding banks, substrate, temperature, and water chemistry.

17. Montana Method (Tennant, 1975)

This methodology is one of the best known and most widely used and accepted methodologies for instream flow determination. It is primarily based on percentages of the average annual flow, as determined from historical data. Studies indicate that the condition of aquatic habitat is similar on most streams carrying the same portion of the average annual flow. After the average annual flow is determined, flows on the stream are studied in the field at 10%, 30%, and 60% of the average annual flow. Using historic records of flow patterns, low flow data and average daily streamflow regime coupled with the field information base flow regimens are recommended. Since the recommended percentages of the average annual flow are applied uniformly to all waters regardless of channel morphology, flow recommendations using this method may be lower than those actually needed by a fishery in certain situations such as in wide, shallow river habitat.

18. Montana Dominant Discharge Method (Montana Department of Fish, Wildlife and Parks, 1979)

This method is used to determine the high flows needed to flush a stream while still maintaining channel morphology. The methodology is based on historic information in regards to bankfull discharge. The recommended flow is estimated by using the $1\frac{1}{2}$ -years frequency peak flow while implementing flows in a manner that models the shape of the natural spring hydrograph in the time period it naturally occurs.

19. Flow Duration Curve of NGPRP (Northern Great Plains Resource Program) Method

Flow recommendations are based on the natural flow regime modeled by flow duration curves of historic data. The validity of this methodology rests on the assumption that the aquatic biological resource present is a function of past discharges. Specific recommendations for the various life history stages cannot be made using this methodology and flow estimates using this methodology have been typically lower than those estimated using other methodologies.

20. Hoppe Method (Hoppe, 1975)

This method is based on percentile levels of the flow duration curve and various activities in the life histories of the species present. The flow that is equalled or exceeded 17% of the time is recommended for a 48-hour flusing flow; that which is equalled or exceeded 40% of the time is recommended for spawning and the flow that is equalled or exceeded 80% of the time is recommended for food production and cover.

Appendix II

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-Exhibit I

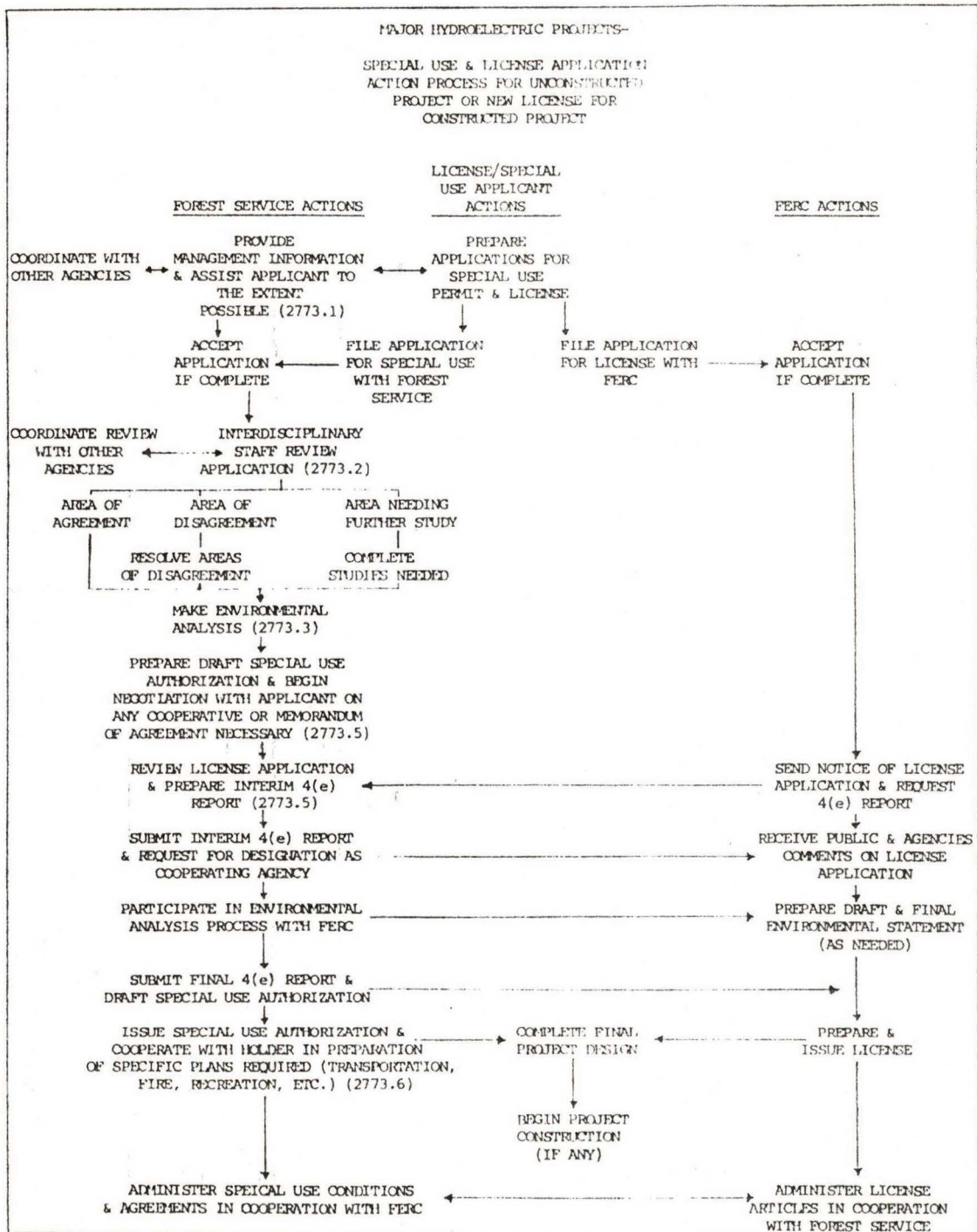


EXHIBIT II

Timeline involvement of the aquatic habitat/wildlife biologist on the FERC licensing/special use authorization processes for a major unconstructed project. An arrow along a line indicates involvement of the specialist indicated in addition to the specialist under which the action is listed.

ACTION	FOREST FERC LICENSE COORDINATOR	FOREST AQUATIC HABITAT/ WILDLIFE BIOLOGIST	OTHER RESOURCE SPECIALISTS *
PRELIMINARY PERMIT			
Steps			
1.	Notification of preliminary permit application and/or issuance (refer to FSM 2771)	----->-----	
2.		When preliminary permit is issued by FERC, contact state wildlife agency and other federal counterparts; gather file and/or field notes available, and solicit comments on potential problems (refer to FSM 2770.7)	Feel free to consult R.O. specialists for consultation and help in assessing impacts where specific expertise is limited on Forest.
3.	<-----	Identify potential problems--Consult Forest Plan	
4.		Develop work plan and conduct cooperative field study, if needed, with permittee and other agency counterparts	
LICENSING AND SPECIAL USE AUTHORIZATION			
Steps			
1.	Receipt of license and special use authorization application (refer to FSM 2772)	----->-----	

* Such as the hydrologist, soil scientist, engineer, etc.

EXHIBIT II cont.

ACTION	FOREST FERC LICENSE COORDINATOR	FOREST AQUATIC HABITAT/ WILDLIFE BIOLOGIST	OTHER RESOURCE SPECIALISTS
2.	<-----	Participate in ID team review of license and special use authorization applications, set up meeting with other fisheries/wildlife agencies to review comments, and resolve conflicts to the extent possible	Participate in ID Team reviews.
3.	<-----	Submit proceedings of external coordination meetings and/or a summary of contacts	
4.	Prepare project decision document	Aid in Draft and Review ----->----->	
5.	<-----	Prepare substantive fisheries/wildlife comments for interim 4(e) letter and for special use authorization (refer to FSM 2773.25)	
6.	Resolve conflicts through ID team meeting	----->----->	
7.	Prepare and submit interim 4(e) report and prepare draft special use authorization	Review ----->----->	
8.	Participate as cooperator in environmental assessment process with FERC (refer to FSM 2773.3; FSM 1950)	----->----->	

EXHIBIT II cont.

ACTION	FOREST FERC LICENSE COORDINATOR	FOREST AQUATIC HABITAT/ WILDLIFE BIOLOGIST	OTHER RESOURCE SPECIALISTS
		Review	
9.	Submit final 4(e) letter and draft special use authorization (refer to FSM 2773.5)	----->	----->
10.	Issue special use authorization*, after FERC license is issued (refer to FSM 2773.6)		
PROJECT CONSTRUCTION AND OPERATION			
Steps			
1.	Administer special use condi- tions and agreements in cooperation with FERC (refer to FSM 2776)		
2.	<-----	Aid in compliance check and monitoring work when project construction and operation begins	

* Prior to issuance of Special Use Permit (SUP), require the permittee (licensee) to prepare a construction, operation, and maintenance plan that by reference becomes a part of the SUP.

324 25th Street
Ogden, Utah 84401

2540

NOV 28 1980

Mr. Dee C. Hansen
State Engineer
Utah Division of Water Rights
200 Empire Building
231 East 400 South
Salt Lake City, Utah 84111

Dear Mr. Hansen:

This is to protest the granting of applications to appropriate water in Duchesne County submitted by Utah Power and Light Company under application numbers 55078 (43-8806), 55079 (43-8807), and 55113 (43-8811). Water uses proposed by the Company would dewater approximately 13 miles of mountain trout streams on Forest Service land, require construction of diversion dams, transmission lines, power plants, roads, and other facilities in both the High Uintas Primitive Area and proposed High Uintas Wilderness, and adversely affect existing Forest Service water rights and uses.

The subject trout streams, which contain populations of wild cutthroat and brook trout, include the West Fork Whiterocks River and the main stems of Whiterocks, Yellowstone, and Uinta Rivers. These have been classified as high-priority fishery resources by the U.S. Fish and Wildlife Service and as class III fishing waters by the Utah Division of Wildlife Resources (DWR) emphasizing protection of their exceptional recreational and aquatic habitat values. These wild trout fisheries and their aquatic-riparian habitats have been managed by the Utah DWR and the FS to sustain sport fishery populations by natural reproduction. This has provided a quality fishing experience traditionally enjoyed by many local residents as well as users from outside the State. Under the UP&L proposal these streams would apparently dry up during low flow periods in the fall and winter months when adequate streamflows are critical for the survival of adult and young trout, as well as for egg incubation. Dewatering of these stream channels would cause the loss of these native fisheries and macroinvertebrate organisms. Power generation operations could also have a negative impact on the downstream water quality.

The Federal Land Policy and Management Act of 1976 (FLPMA) recently changed the procedure for granting permits for hydroelectric power developments. In order to comply with FLPMA regulations, the State water right, the FERC license, and the Forest Service special use permit to occupy the land must be applied for simultaneously.

Before granting a special use permit, the project must satisfy environmental evaluation and assessment requirements. At the same time, the Forest Service would advise the State whether the proposal is environmentally acceptable. Because preapplication information for special use permit has not been received by the Forest Service, the proposed project is not fully understood and environmental impacts cannot be assessed. It would appear, however, that those water use proposals located within the Primitive and proposed Wilderness Areas would destroy the wilderness character of this area including riparian habitat, fishery habitat, and visual quality.

The policies and regulations for management of National Forest Wilderness are to protect and maintain the natural, dynamic equilibrium associated with natural, complete ecosystems. Policy and regulation for management of Primitive Areas and other areas proposed for Wilderness classification to Congress by the President provide for maintaining the existing wilderness resource and associated values. This allows for uses and activities that would not be permitted in Wilderness only to the extent that they are already ongoing and/or are transitory in nature, with no lasting effects or impacts on the present ecosystem.

Primitive Areas are to be managed under the provision of the Wilderness Act (16 USC 1131-1136) until they are considered for Wilderness designation by Congress, and the Act provided for water development and related improvements only with Presidential approval.

It is our contention that the applicant's proposed use of water interferes with Forest Service water rights and needs. Forest Service State water rights claims covering the affected streams include adjudication numbers 43-5207 (Yellowstone River), 43-3924 (Uinta River), and 43-3905, 43-3909, 43-3910, and 43-4032 (Whiterocks River). In addition to the above-mentioned State water rights, the United States has Federal reserved rights on these streams with a priority date of July 14, 1905. These reserved rights are for the

Mr. Dee C. Hansen

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date of July 14, 1905. These reserved rights are for the purposes of watershed protection and/or timber production. These uses are the purposes for which the Ashley National Forest was established and are in agreement with the findings in the United States v. New Mexico. Because of the surprise nature of UP&L's applications, quantification of these reserved rights has not yet been made.

We are, therefore, requesting that the subject applications to appropriate water be denied.

L. KENT MAYS, JR.
Deputy Regional Forester
Resources

cc:
Ashley NF
L
RN
WL
E
CUP

FERC-WL: EXHIBIT IV - Example of Water Rights Application Notice

ID 83611
 Source: GROUNDWATER
 Date Filed: 03-22-1982
 Amount: 2.0 AC-FT
 Diversion Point: SWSE
 Sec 03 T 12N R 03E,
 VALLEY Co.
 Use: MINING STORAGE
 (2.0 AC-FT) from 01-01 to
 12-31 MINING FROM
 STORAGE (2.0 AC-FT) from
 05-15 to 10-31
 Place of Use: SWSE Sec 03
 T 12N R 03E
 Diversion Means: PUMP
 & POND
 65-12497
 LESTER L. KELLEY &
 ASSOC.
 P.O. BOX 259, CASCADE,
 ID 83611
 Source: LEMAH CREEK
 tributary to PAYETTE
 LAKE
 Date Filed: 03-15-1982
 Amount: 14.00 CFS
 Diversion Point: NWSE
 Sec 13 T 19N R 03E,
 VALLEY Co.
 Use: POWER (14.00 CFS)
 from 01-01 to 12-31
 Place of Use: NWNE Sec
 23 T 19N R 03E
 Diversion Means: CON-
 TROL GATES & PEN-
 STOCK
 77-7164
 LESTER L. KELLEY &
 ASSOC.
 P.O. BOX 259,
 CASCADE, ID 83611
 Source: JOHNSON
 CREEK tributary to
 SALMON RIVER, SOUTH
 FORK
 Date Filed: 03-10-1982
 Amount: 60.00 CFS
 Diversion Point: NESW
 Sec 30 T 17N R 08E VALLEY
 Co.
 Use: POWER (60.00 CFS)
 from 01-01 to 12-31
 Place of Use: NENE Sec
 30 T 17N R 08E
 Diversion Means: CHECK
 GATES & PENSTOCK
 If issued, the permit(s)
 will be subject to all prior
 water rights. Protests
 against the granting of any
 permit must be filed with the
 Director of the Idaho
 Department of Water
 Resources, 92 S. Cole Road,
 Boise, Idaho 83709, on or
 before APRIL 19, 1982.
 A KENNETH DUNN
 Director
 Published 3-31 & 4-7-82.

sums expended under the
 terms thereof, interest
 thereon, and \$17,000.00, be-
 ing the balance owing in un-
 paid principal of the note
 secured by said Deed of
 Trust, with interest thereon
 per subsequent agreement
 dated October 20, 1981 at the
 rate of 14% per annum to and
 through February 24, 1982 in
 the amount of \$819.48, plus
 accrued interest at the rate
 of \$6.83 per diem from
 February 24, 1982 until paid
 in full, plus taxes for the
 year 1981 in the amount of
 \$242.58 of which the first half
 of \$121.29 is delinquent, plus
 2% penalty and 1% interest
 per month until paid, as in
 said note and subsequent
 agreement and by law pro-
 vided, and together with
 fees, charges and expenses
 of the Trustee, and costs of
 foreclosure, including
 reasonable attorney's fees.
 The breach of and default
 in the obligations secured
 said Deed of Trust for which
 this sale is to be made,
 hereinabove mentioned,
 that payment pursuant to the
 terms of said Deed of Trust
 note have not been made
 follows:

The sum of \$17,000.00
 originally due on September
 15, 1981 plus accrued interest
 per subsequent agreement
 dated October 24, 1982 at the
 rate of fourteen percent
 (14%) per annum to and
 through February 24, 1982,
 the amount of \$819.48, plus
 accrued interest at the rate
 of \$6.83 per diem from
 February 24, 1982 until paid
 in full.
 Taxes for the year 1981
 the amount of \$242.58
 which the first half of \$121.29
 is delinquent, plus 2% pen-
 ty and 1% interest per month
 until paid.

And that, therefore, the
 beneficiary has elected to
 consider all of the principal
 and interest due in con-
 sequence of said default, in ac-
 cordance with the terms of
 said Deed of Trust and Deed
 of Trust Promissory Note
 and also together with costs
 trustee's expenses and fees
 and reasonable attorney's
 fees incurred by said
 beneficiary in connection
 with foreclosing its right
 because of said default

Idaho.

The default for which the
 sale is to be made is the
 failure to:

(1) Make monthly
 payments of principal and
 interest in the amount of
 \$208.41 for the month of Ju-
 1, 1981, and subsequent mo-
 ths to date hereof.

(2) Make monthly reser-
 vations for taxes and
 insurance in the amount of
 \$23.59 for the same period
 and the balance owing as of
 May 1, 1981, on the obligat-
 ion secured by said Deed of
 Trust is \$25,248.09 with in-
 terest accruing at 8%.

DATED: February 3, 1982
 s-Norman S. Jensen
 NORMAN S. JENSEN
 Trust

3-25-4T

NOTICE OF APPLICATION FOR WATER RIGHT

Notice is hereby given that
 the following application(s)
 have been submitted for per-
 mit to appropriate the public
 waters of the State of Idaho:

65-12499
 LESTER L. KELLEY &
 ASSOC.

P.O. BOX 259, CASCADE,
 ID 83611

Source: UNNAMED
 STREAMS tributary to
 FALL CREEK FALL
 CREEK tributary to
 PAYETTE LAKE

Date Filed: 03-15-1982
 Amount: 10.00 CFS

Diversion Point: NENW
 Sec 30 T 19N R 04E SWNE
 Sec 19 T 19N R 04E,
 VALLEY Co.

Use: POWER (10.00 CFS)
 from 01-01 to 12-31

Place of Use: SESE Sec 26
 T 19N R 03E

Diversion Means: CHECK
 STRUCTURE, CONTROL
 GATES & PENSTOCK

65-12500
 LESTER L. KELLEY &
 ASSOC.

P.O. BOX 259, CASCADE,
 ID 83611

Source: JUMBO BASIN
 CREEK tributary to TYEE
 CREEK TYEE CREEK
 tributary to LAKE FORK
 CREEK

Date Filed: 03-15-1982
 Amount: 14.00 CFS

Diversion Point: SWSW

Place of Use: SWNW Sec
 20 T 17N R 08E

Diversion Means: CHECK
 GATES, PENSTOCK &
 GENERATION FACILITY

77-7170

KELLEY, LESTER L.
 & or DAVID H.

P.O. BOX 259, CASCADE,
 ID 83611

Source: RIORDAN
 CREEK tributary to
 JOHNSON CREEK

Date Filed: 03-03-1982

Amount: 40.00 CFS

Diversion Point: SESW
 Sec 15 T 12N R 08E,
 VALLEY Co.

Use: POWER (40.00 CFS)
 from 01-01 to 12-31

Place of Use: NWNE Sec
 16 T 18N R 08E

Diversion Means: CON-
 TROL GATES, PENSTOCK
 & GENERATION

77-7171
 LESTER L. KELLEY &
 ASSOC.

P.O. BOX 259, CASCADE,
 ID 83611

Source: UNNAMED
 STREAMS tributary to
 REEGAN CREEK

REEGAN CREEK tributary
 to SALMON RIVER, E.
 FORK S. FORK

Date Filed: 03-10-1982
 Amount: 8.00 CFS

Diversion Point: NESW
 NESE Sec 22 T 19N R 07E
 SWSW Sec 23 T 19N R 07E,
 VALLEY Co.

Use: POWER (8.00 CFS)
 from 01-01 to 12-31

Place of Use: SESW SWSE
 Sec 27 T 19N R 07E

Diversion Means: CHECK
 GATES, PENSTOCK &
 GENERATION FACILITY

77-7172
 LESTER L. KELLEY &
 ASSOC.

P.O. BOX 259, CASCADE,
 ID 83611

Source: UNNAMED
 STREAM tributary to
 PARKS CREEK PARKS
 CREEK tributary to
 SALMON RIVER, SOUTH
 FORK PARKS CREEK,

EAST FORK tributary to
 PARKS CREEK

Date Filed: 03-10-1982
 Amount: 10.00 CFS

Diversion Point: NENE
 Sec 24 T 19N R 07E SWNW
 SWSE Sec 18 T 19N R 08E,
 VALLEY Co.

Use: POWER (10.00 CFS)
 from 01-01 to 12-31

Place of Use: NWNW Sec
 30 T 19N R 08E

Diversion Means: CHECK
 GATES, PENSTOCK &
 GENERATION FACILITY

77-7173
 LESTER L. KELLEY &
 ASSOC.